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EXAMINER
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2623

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/351,086  
Filing Date: July 09, 1999  
Appellant(s): DIMITROVA, NEVENKA

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Phillips Electronics North America

For Appellant

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**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

This is in response to the appeal brief filed 01/20/06 appealing from the Final Office action mailed August 24, 2005.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,546,555 B1	HJELSVOLD ET AL.	04-2003
6,463,444 B1	JAIN ET AL.	10-2002

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**(9) Grounds of rejection:** Detailed Action of the Final office action is included herein for the Board of Appeals members conveniently review and examine without having to refer back and forth between this examiner answer and the final office action.

## DETAILED ACTION

### *Claim Rejections - 35 USC 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --  
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.*

Claims 1-10, and 18-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Hjelsvold et al. (U.S. Patent No. 6,546,555 B1).

Regarding claim 1, Hjelsvold discloses “a method for processing video, the method comprising: determining an association between a first video segment including a particular feature and at least one additional information source also including that feature; and utilizing the association to display information from the additional information source based at least in part on a selection by a user of the feature in the first video segment while the video segment is displayed to the user”, i.e., video segments are delivered to the viewer, while viewing the programming segment with a particular feature, the viewer further access to related information

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to that feature from an additional information source of a vendor for that particular product or service based on the defined association between the video segment and related information sequences (Figs. 16-18, and col. 2/line 58 to col. 3/line 32 for hypervideo to link to additional information related to a feature of a product or a service; and col. 11/line 16 to col. 12/line 10 for further details on the determination of association between parameter values and hyperlink and hypervideo ).

As for claim 2, in view of claim 1, Hjelsvold discloses “wherein determining the association further includes the step of retrieving the association from a memory” (Fig. 1, for the server 10 retrieves the meta-data from a database for filtering based on related features as explained earlier).

As for claims 3 and 4, in view of claim 1, Hjelsvold discloses “wherein determining the association further includes determining the association from information in a portion of the video segment”, i.e., a portion of a video segment as individual shots, scenes and sequences can be determined, requested and retrieved (Figs. 4-5, and col. 6/line 65 to col. 7/line 27); and Hjelsvold further discloses “wherein the additional information source comprises an additional video segment also including the feature” (as already discussed in claim 1).

As for claims 5 and 6, in view of claim 4, Hjelsvold discloses “wherein utilizing the association includes switching from display of the first video segment to display of the additional video segment also including the feature” (as shown in Figs. 16-18, for the display of the next screen including the video feature of the feature of a product or service); and Hjelsvold further discloses “wherein utilizing the association includes displaying the additional video segment at

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least in part in a separate portion of a display which also includes at least a portion of the first video segment” (Figs. 17-18, and col. 12/lines 1-33).

As for claim 7, in view of claim 1, Hjelsvold further discloses “wherein the feature is a video feature extracted from at least one frame of the video segment”, i.e., the selected target is at least one frame of the video segment as a window frame of image (Fig. 17 and col. 12/line 1-33 clearly show the next additional information is extracted from at least one frame of the video sequences, as discussed earlier in Figs. 4-5 for the building of an association between parameter values for video sequences within the filtering process).

As for claim 8, in view of claim 7, Hjelsvold discloses “wherein the video feature comprises at least one of a frame characterization, a face identification, a scene identification, an event identification, and an object identification” (Figs. 14, and 16-18 for these features).

As for claims 9 and 10, in view of claim 1, Hjelsvold further discloses “wherein the feature is an audio feature extracted from at least one frame of the video segment” and “wherein utilizing the association includes combining an audio signal corresponding to the audio feature with an audio signal associated with the first video segment”, i.e., as the user selects a desired target, the video segment including audio tracks related to the selected portion of feature is provided (col. 4/lines 51-64 for multimedia includes video, audio tracks and other objects).

As for claims 18-25, these claims with same limitations are rejected for the reasons given in the scope of claims 1-10 as already discussed in details above.

***Claim Rejections - 35 USC 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hjelsvold et al. (U.S. Patent No. 6,546,555 B1) in view of Jain et al. (U.S. Patent No. 6,463,444 B1).

Regarding claim 11, in view of claim 9, Hjelsvold does not further disclose “wherein utilizing the association includes converting an audio signal corresponding to the audio feature into a textual format which is displayed with the first video segment”; however, such a technique of converting audio signal to a textual format or speech-to-text feature is known in the art. In fact, Jain, in a video cataloger system for providing video/audio information data to the user, teaches to use a closed caption decoder (Fig. 3) or speech-to-text converting technique for providing a textual format to display with the video to the user (Fig. 9, item 518, and col. 9/line 45 to col. 10/line 38 for audio feature extractors). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hjelsvold’ system with Jain’s teaching technique as disclosed in order to provide an additional feature such as a textual format in addition to the display of video presentation. This technique is helpful for some people have difficulty in hearing, so that they can read the texts on the display screen instead, which serves also as a motivation for modifying Hjelsvold regarding this limitation.

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As for claim 12, in view of claims 9 and 11 above, Jain further including “separating at least a portion of the video segment into audio categories including one or more of single-voice speech, multiple voice speech, music, silence and noise in order to extract the audio feature therefrom” (see Fig. 6 and col. 9/line 45 to col. 10/line 38 for a monitoring screen for separating a portion of video segment into audio categories and audio feature extractors as addressed).

As for claim 13, in view of claims 9 and 11 above, Jain teaches “wherein the audio feature comprises at least one of a music signature extraction, a speaker identification, and a transcript extraction”, i.e., music, and/or speaker ID, signatures or sample speeches of individual speaker or transcripts from the speaker are within audio feature addressed (see col. 9/line 18-col. 10/line 38).

As for claim 14, in view of claim 1, the combination of Hjelsvold and Jain teaches “wherein the feature is a textual feature extracted from at least one frame of the video segment”, i.e., applied Jain’s technique of textual feature extracted, the at least one frame of the video segment as discussed earlier of Hjelsvold would contain the textual feature (see claims 1, 7 and 11).

As for claim 15, in view of claim 14, Jain further discloses “wherein utilizing the association includes displaying information corresponding to the textual information as an overlay on a display of the first video segment” (as illustrated in Fig. 17, and col. 14/lines 15-63).

As for claim 16, in view of claims 1 and 14, Jain further teaches “wherein determining the association further includes determining the association based at least in part on at least one multi-dimensional feature vector extracted from a portion of the video segment using a feature



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extraction technique” (Fig. 14, and col. 12/lines 20-46 for feature extraction technique addressed).

Claim 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hjelsvold et al. (U.S. Patent No. 6,546,555 B1) in view of the application’s specification (page 9, line 19 to page 10/line 13).

As for claim 17, in view of claim 1, Hjelsvold does not disclose “wherein determining the association further includes determining the association based at least in part on at least one of a similarity measure and a clustering technique”; however, this limitation is admitted as prior art by the Applicant (page 9, line 19 to page 10/line 13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hjelsvold’s technique with a known prior art using similarity measure and a clustering technique for determining the association or the relationship in the determining step of claim 1, for the purpose of providing same information to a group of users with similarity interests on a certain product or service as preferred.

***(10) Examiner's Arguments:***

**Claims 1-10 and 19-25:** (a user, or a viewer, or a client can be used interchangeably herein by the examiner for referring to the user at the client side, as illustrated in Figs. 13-14 of Hjelsvold).

**1a) The appellants argue that Hjelsvold does not teach “determining an association between a first video segment including a particular feature and at least one additional information source also including that feature”.**

First, one would wonder what is “an association” that the appellants refer to? In pages 6-7 of the specification, it is simply referred to as “a corresponding physical link” between two entities or features. It may imply other things, but on page 7, 2<sup>nd</sup> paragraph, it broadly calls for the physical link itself. One of ordinary skill in the art understands that “a physical link” is a connection between two entities, either in wired or wireless connection, i.e., the use of twisted wired pair, fiber optic cable, coaxial cable, radio frequency or RF, or the Internet connection using the existing telephone wires for dialing up or a cable modem for high speed link. Thus, it is clear that Hjelsvold’s system, Figs. 14-18, shows an internet connection from the clients to streaming servers, and that this connection represents “an association” for having a physical link, and a (first) video segment(s) including a particular feature (a product), as shown in Figs. 16-17, a video scene of a product (a particular feature) with its corresponding more product information (additional information source), and this additional product information (more video information about the product or price) is obtained from the vendor. Claim 1 in the action was also clear in explaining on the hyperlink for linking to hypervideo, which also reads on the claiming feature

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because the Internet linking connection by using a hyperlink for further product information defined “the association between two entities”. Then the displaying information to the user occurs based on the use of the association as already discussed in the office action (refer to Fig. 17), and there is no need to repeat it here.

**1b) The appellants argue that Hjelsvold does not teach the analyze feature.**

Furthermore, the appellant mistakenly notes that Hjelsvold does not teach “analyze the video segment to determine an association to provide such a link...” (page 10 of 22, 1<sup>st</sup> par.), the examiner would like to point out to all illustrations in Figs. 4-8 and column 11, lines 25-67 for video segments are identified, defined, analyzed based on types and parameters and the filtering process handles the task for matching the linking process to appropriate additional information features; otherwise, the user can not get the appropriate links for addition video scene or additional product information related to the displaying product, refer to Fig. 17 again.

**2) The appellants argue that Hjelsvold does not teach extracting a video feature from a frame (claims 7-8).**

Please take a closer look at column 6, line 50 to column 7, line 11 for the extracting feature as individual shots, scenes, and narrative sequences of scenes are analyzed, indexed, and determined in order to generate the filtering meta-data needed for further processing and identifying purposes.

**3a) The appellants argue that Hjelsvold does not teach extracting an audio feature from a frame (claims 9).**

In addition to column 4, lines 51-64 in the office action for audio tracks and closed captioning is identified, and it teaches the audio information data is extracted in the form of texts (or textual feature) for visual displaying in case the viewer can not hear the audio feature; the video segments include video and audio information, not only referred to video but also to audio.

**3b) The appellants argue that Hjelsvold does not teach mixing or merging the audio among the selected segments (claim 10).**

Understanding items 3 and 4 above, one would easily realizes that as the user selects a desired target (for a product), the video segment including audio tracks related to the selected portion of feature (of that product with additional video information is provided (col. 4/lines 51-64 for multimedia includes video, audio tracks and other objects), and further details on column 10, line 48 to column 11, line 15 as the synchronization between tracks are doing the mixing and/or merging different tracks (of video including audio tracks) based on parameters for displaying the particular hypervideo stream to the user.

**5) The appellants argue that Hjelsvold and Jain fail to teach or suggest extracting a textual feature from a frame of the video segment (claim 14-15).**

The combination of Hjelsvold and Jain teach extracting a textual feature from a frame of the video segment, i.e., applied Jain's technique of textual feature extracted, the at least one frame of the video segment as discussed earlier of Hjelsvold would contain the textual feature. Furthermore, please take a closer look of Hjelsvold at column 6, line 50 to column 7, line 11 for the extracting feature as individual shots, scenes, and narrative sequences of scenes are analyzed, indexed, and determined in order to generate the filtering meta-data needed for further processing and identifying purposes.

**6) The appellants argue that Hjelsvold and Jain fail to teach or suggest determining an association based at least in part on at least one multi-dimensional feature vector extracted from a portion of the video segment using a feature extraction technique (claim 16).**

In the office action, Figure 14 and the cited paragraphs of Jain is for the flow chart of how the feature extraction is done. In order to brighten up the issue, the examiner would like to further point out to Figure 7 and column 7/lines 10-29 as Jain clearly shows the relationship (or "an association") of video segment or portion of metadata as being indexed by the feature extractors. Those indexed or identified video IDs are associated together as sequences. Therefore, Jain reads on this feature.

**7) The appellants argue that Hjelsvold fails to teach determining an association between a first video segment including a particular feature and at least one additional information source also including that feature (claim 17).**

As discussed earlier, one would wonder what is “an association” that the appellants refer to? In pages 6-7 of the specification, it is simply referred to as “a corresponding physical link” between two entities or features. It may imply other things, but on page 7, 2<sup>nd</sup> paragraph, it broadly calls for the physical link itself. One of ordinary skill in the art understands that “a physical link” is a connection between two entities, either in wired or wireless connection, i.e., the use of twisted wired pair, fiber optic cable, coaxial cable, radio frequency or RF, or the Internet connection using the existing telephone wires for dialing up or a cable modem for high speed link. Thus, it is clear that Hjelsvold’s system, Figs. 14-18, shows an internet connection from the clients to streaming servers, and that this connection represents “an association” for having a physical link, and a (first) video segment(s) including a particular feature (a product), as shown in Figs. 16-17, a video scene of a product (a particular feature) with its corresponding more product information (additional information source), and this additional product information (more video information about the product or price) is obtained from the vendor. Claim 1 in the office action was also clear in explaining on the hyperlink for linking to hypervideo, which also reads on the claiming feature because the Internet linking connection by using a hyperlink for further product information defined “the association between two entities”. Then the displaying information to the user occurs based on the use of the association as already discussed in the office action (refer to Fig. 17), and there is no need to repeat it here.

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**5) The appellants argue that Hjelsvold does not teach controlling a display based on a selection by a user of the feature in the first video segment while the video segment is displayed to the user (claim 18).**

Please refer to column 7, lines 47-64, Hjelsvold teaches the user can access and selects the feature representing to the user/viewer, and refer to item 5 above on the synchronization and filtering process for displaying streaming video segments to the user/viewer/client.

**7) Prior Art Admitted**

In addition, the limitation of claim 17 is admitted as prior art submitted by the Applicant (page 9, line 19 to page 10, line 13).

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Primary Examiner  
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March 21, 2006

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